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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/799,143  | 03/11/2004  | Lutz Biedermann      | B884:56717          | 7913             |
| 23363 7590 06/21/2010<br>CHRISTIE, PARKER & HALE, LLP<br>PO BOX 7068<br>PASADENA, CA 91109-7068 |             |                      |                     |                  |
| EXAMINER  |             |                      |                     |                  |
| HOFFMAN, MARY C   |             |                      |                     |                  |
| ART UNIT  |             | PAPER NUMBER         |                     |                  |
| 3733  |             |                      |                     |                  |
| MAIL DATE   |             | DELIVERY MODE        |                     |                  |
| 06/21/2010  |             | PAPER                |                     |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/799,143

**Applicant(s)**

BIEDERMANN ET AL.

**Examiner**

MARY HOFFMAN

**Art Unit**

3733

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 May 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,5-15,21,22,25-28 and 33-40 is/are pending in the application.
- 4a) Of the above claim(s) 9-15 and 28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-8,21,22,25-27 and 33-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Proficiency's Patent Drawing Review (PTO-544)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 05/12/2010
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/12/2010 has been entered.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

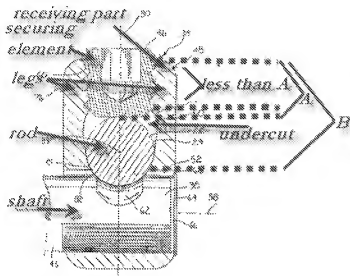
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 7, 21, 22 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Krag (US 6,231,575), cited by Applicant.

Krag discloses an anchoring element (See FIG. 7 and marked up figure below) for use in spinal or bone surgery; the anchoring element comprising: a shaft for anchoring in a vertebra or a bone section; a rod having a pre-determined diameter (D) and an outer surface; a receiving part, which is connected to the shaft and is structured and arranged to connect to the rod, the receiving part having a longitudinal axis and

comprising a U-shaped recess forming a channel for the reception of the rod and two legs having free ends, the legs comprising a first internal thread, the legs further providing an exterior end surface of the receiving part; and a securing element comprising a screw member having a first external thread that engages and cooperates with the first internal thread; whereby a first distance from the exterior end surface of the receiving part to a closest portion of the outer surface of the rod in an axial direction is a pre-determined distance (A); the first internal thread extending from the exterior end surface of the receiving part to a second distance that is smaller than or equal to the pre-determined distance (A); and the receiving part further comprising an undercut (*i.e.* a cut made in a lower part; a cut made below another cut or into the lower part of something- see Encarta® World English Dictionary, North American Edition online for definition) extending circumferentially and the first internal thread extending to the undercut, the undercut having an edge farthest away from the first internal thread, the edge being located at a third distance (B) from the exterior end surface, the distance (B) being larger than the predetermined distance (A).



The first internal thread extends into the undercut. The securing element contacts the rod. The undercut has a depth that corresponds at least to the depth of the first internal thread. A connection between the shaft and the receiving part is structured and arranged to be a monoaxial connection.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8, 35-36 and 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krag (US 6,231,575)

Krag discloses the claimed invention except for the shaft and the receiving part being integral (claim 8), and the first thread comprising fewer than four full turns (claims 35-36 and 39-40).

Regarding claim 8, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the device of Krag with the shaft and the receiving part being integral, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

Regarding claims 35-36 and 39-40, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the device of Krag with the first thread comprising fewer than four full turns, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Claims 5 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krag (US 6,231,575) in view of Harms et al. (U.S. Patent No. 5,873,878).

Krag discloses the claimed invention except for the screw nut having an internal thread; and wherein the receiving part further comprises an external thread that cooperates with the internal thread of the screw nut.

Harms et al. disclose a screw nut (ref. #12) having an internal thread; and wherein the receiving part further comprises an external thread that cooperates with the

internal thread of the screw nut for fixation of the rod in combination with an internal screw.

It would have been obvious to one skill in the art at the time of the invention was made to make an device of Krag with a screw nut having an internal thread; and wherein the receiving part further comprises an external thread that cooperates with the internal thread of the screw nut in view of Harms et a. in order to achieve fixation of the rod in combination with an internal screw and to reduce splaying of the arms.

Claims 6 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krag (US 6,231,575) in view of Hall (U.S. Patent No. 4,041,939).

Krag discloses the claimed invention except for the threads being selected from a metric thread, a buttress thread, a flat thread or a thread with a negative load-bearing angle.

Hall discloses of using anchoring elements with buttress threads, which allows the element to be firmly secured (col. 1, lines 51-60).

It would have been obvious to one skill in the art at the time of the invention was made to make an device of Krag with buttress threads in view of Hall in order to have a firmly secured anchor element. Moreover, it would have been an obvious matter of design choice to one skilled in the art at the time the invention was made to construct the threads of Krag being selected from a metric thread, a buttress thread, a flat thread or a thread with a negative load-bearing angle, since applicant has not disclosed that such solve any stated problem or is anything more than one of numerous shapes or

configurations a person ordinary skill in the art would find obvious for the purpose of providing threads. *In re Dailey and Eilers*, 149 USPQ 47 (1966).

Claims 33-34 and 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krag (US 6,231,575) in view of Mehdiian (U.S. Patent No 5,217,497).

Krag discloses the claimed invention except for the securing device not protruding from the receiving part.

Mehdiian discloses a securing device not protruding from the receiving part (FIGS. 11-12, ref. #24) to avoid projecting parts (col. 5, line 49).

It would have been obvious to one skill in the art at the time of the invention was made to make an device of Krag with a securing device being flush with the receiving part in view of Mehdiian to avoid projecting parts.

### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARY HOFFMAN whose telephone number is (571)272-5566. The examiner can normally be reached on Monday-Thursday 10:00-5:00pm.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo C. Robert can be reached on 571-272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mary C. Hoffman/  
Examiner, Art Unit 3733  
/Eduardo C. Robert/  
Supervisory Patent Examiner, Art Unit 3733

